ABSTRACT OF THE DISCLOSURE

A block repair device is used in a semiconductor memory having an array including a defective cell and a redundant row. The block repair device includes a set of fuses, anti-fuses, or flash EEPROM cells to store a block repair configuration that determines the dimensions (*e.g.*, the number of rows and columns spanned) of a repair block used to repair the defective cell. Routing circuitry, such as multiplexer circuitry, in the block repair device is directed by the stored block repair configuration to output selected row and column address bits from received row and column addresses in a selected ratio. Comparison circuitry in the block repair device then compares the row and column address bits output by the routing circuitry with a stored portion of the address of the defective cell that defines the repair block. When a match occurs, the comparison circuitry implements a block repair by activating the redundant row and by causing data to be written to or read from the activated redundant row.

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